

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (currently amended) An indirect heating system [(1)] in which a solid fuel circulates in the form of particles, comprising:

[(including)] a grinding station [(3),];

a combustion chamber [(7),] ;

at least one intermediate silo [(6),] ;

a separator [(4)] ; [(and)]

at least one cyclone [(5),] ; and ~~which system is characterized in that~~

a dust extractor [(10)] that intercepts the finest particles which are then introduced into the combustion chamber [(7)] via at least one dedicated pipe [(52)] and burned by at least one dedicated burner [(71)].

2. (currently amended) A heating system according to claim 1, [(characterized in that)] wherein the dedicated burners [(71)] are near [(the)] main burners [(70)].

3. (currently amended) A heating system according to claim 2, [(characterized in that)] wherein each series of said main burners [(70)] has at least two of said dedicated burners [(71)].

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4. (currently amended) An indirect heating system [(1)] in which a solid fuel circulates in the form of particles, comprising:

[(including)] a grinding station [(3),] ;

a combustion chamber [(7),] ;

at least one intermediate silo [(6),] ;

a separator [(4) and] ;

at least one cyclone [(5),] ; ~~and which system is characterized in that~~

a dust extractor [(10)] that intercepts the finest particles which are then introduced into the combustion chamber [(7)] via dedicated pipes [(53)] and injectors [(72)] downstream of [(the)] main burners [(70)].

5. (currently amended) A heating system according to claim 4, [[characterized in that]] wherein the finest particles are injected under substoichiometric conditions.

6. (currently amended) A heating system according to [[any preceding]] claim 1, [[characterized in that]] wherein the intercepted particles have a diameter less than 75 microns.

7. (currently amended) A heating system according to [[any preceding]] claim 1, [[characterized in that]] wherein the intercepted particles have a true mass per unit volume from  $0.1 \text{ kg/dm}^3$  to  $0.4 \text{ kg/dm}^3$  lower than that of the particles intercepted by the cyclone.

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8. (currently amended) A heating system according to claim [[1]] 2, [[characterized in that]] wherein some of the intercepted particles are introduced into [[the]] injectors [[(72)]] downstream of the burners [[(70, 71)]].

9. (currently amended) A heating system according to [[any preceding]] claim 1, [[characterized in that]] wherein the combustion chamber [[(7)]] is a double vault combustion chamber.

10. (currently amended) A heating system according to [[any of claims]] claim 1 [[to 8]], [[characterized in that]] wherein the combustion chamber [[(7)]] is a front heating combustion chamber.

11. (currently amended) A heating system according to [[any of claims]] claim 1 [[to 8]], [[characterized in that]] wherein the combustion chamber [[(7)]] is a tangential heating combustion chamber.

12. (currently amended) A heating system according to [[any preceding]] claim 1, [[characterized in that]] wherein the solid fuel is non-bituminous coal.